# DISEASE CONTROL PRIORITIES PROJECT: GENDER DIFFERENTIALS IN HEALTH: SUMMARY REVIEW AND EMERGING ISSUES (EXPANDED OUTLINE)

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## OVERVIEW

The purpose of this chapter is to provide a summary overview of women's health priorities derived from gender differentials in health worldwide and identify cost effective interventions to improve women's wellbeing and gender equity in health.

The chapter will identify gender differentials in mortality and morbidity worldwide for developed and developing countries, world regions, and different age groups (life stages), focusing on high prevalence diseases, according to global burden of diseases (GBD) data (2001) provided by DCPP project (see tables used in the Authors Guidelines and annexes). It also will:

(a) Describe world patterns and changes over the last decade focusing on excess health burdens for women over men. It will analyze determinants of these excess health burdens, identifying, when possible, prevalence of biological (sex) or social (gender) influences, and highlighting the contribution of gender inequality to health burdens, and,
(b) Identify evidence of cost-effective packages, interventions and policies that could improve women's health conditions and reduce gender inequality in health. It will propose future research and action agendas.

The chapter will use information contained in the disease chapters in the book to determine packages of services and strategies for delivery that are likely to be most cost-effective in addressing women's needs. Coordination with other chapters´ authors is needed to: (a) Ensure that disease chapters include gender-relevant perspective and information, where appropriate; (b) Solicit the input and expertise of authors of chapters that are already focused on women (e.g., maternal and perinatal health, contraception); (c) Use case examples in our chapter that may draw on material from other chapters to highlight the gender-specific features of the disease (e.g., tropical disfiguring diseases), risk factors (e.g., indoor air pollution), or interventions (e.g., community-based clinics that address ease of access).

Why a focus on women's and not men's excess disease burdens? Evidence on gender inequalities worldwide and gender bias in health research (medical knowledge) and services justifies focus on women's health. Women have worse self-reported health status in virtually all-64 surveys of individuals from 46 countries up to age 65 (Saldana et al. 2000). This is so despite the gender paradox in health outcomes (men live shorter but healthier lives than women).

There has been ample burden of disease data to support the importance of mortality and morbidity in women attributable to reproductive health issues, and there are numerous economic evaluations indicating that among the most cost-effective interventions to improve health outcomes are those directed towards safe motherhood. By focusing on gender differentials, the chapter will attempt to synthesize and provide a framework for some of the other burdens borne by women. Indeed, nearly two-thirds of the years of healthy life lost by women in developing countries are caused by problems *other* than reproductive health and STDs. Unfortunately, the magnitude of work done in assessing the cost-effectiveness of interventions targeting this *other* proportion of the disease burden is far less.

The emphasis of the chapter will be on gender differentials and inequalities in health rather than on women's (absolute) health conditions and needs. It will not be a comprehensive women's health resource or complete compilation of gender-relevant information on health burdens and interventions; rather it will distill information on the delivery of cost-effective health interventions directed at women to improve their health status and reduce gender inequities in health.

## SECTION 1: CONCEPTUAL FRAMEWORK TO EXPLAIN GENDER GAPS IN BURDEN OF DISEASE DATA

*Evolution of ideas*: Provides background information on evolution of thinking on health and gender issues in health. Regarding the latter, ideas progressed from an almost exclusive focus on maternal and child health (MCH), ignoring the maternal component, to maternal mortality and women's reproductive health and to gender differentials and inequalities in health. Describes milestones in last decades. Current interest on gender equity in health takes place within larger context: globalization and spread of diseases, concern about inequality, relevance of global public goods in health, grant funding for health, productivity rationale for health investments (no longer only a human rights issues), changes in women's productive roles, health transitions, Millennium Development Goals (MDG) and resurgent interest in public health interventions.

*Acknowledges medical and social determinants of disease*. The framework distinguishes biological (sex) and social (gender) factors in explaining differentials in health burdens. Sex and gender can act alone, independently, or interactively in determining differentials in burden of disease. It is important to try to disentangle the contributions of biological (genetic or phenotypic) and social (gender) differentials – social differentials mostly reflect gender inequities. Some differentials in health burdens are predominantly based on biology (menstrual irregularities resulting from exposure to cooking oil), others are mostly gender based (injuries resulting from domestic violence), and many others result from interaction of sex and gender (depression, transmissible diseases). Knowledge on determinants is imperfect and evolving.

This section also distinguishes determinants of gender differentials in *disease* (of biological or social origin, or of interaction biology x social) and in *service utilization,* explaining women's excess health burdens. That is, women's disproportionate health burdens are a function of differential risk/exposure to disease and women's underutilization of health services.

*Risk Factors*: Factors that influence gender differentials in exposure/risk of disease include: (a) biological, physiological and hormonal differences between the sexes; (b) changing nature and rate of women's (and men's) participation in social institutions including the labor market, family roles and tasks, schooling, community and religious institutions; (c) cultural and religious beliefs and behaviors regarding gender roles; (d) gender differences in educational attainments; (e) income differences between genders or between female and male headed households;

Factors that influence women's utilization of health services include: (a) on the supply side, service factors such as accessibility; affordability (money and time costs); and appropriateness; (b) on the demand side, beliefs and social restrictions affecting access and use; income and time constraints affecting affordability; low education affecting use; marital and work status affecting access (to health benefits tied to SS).

## SECTION 2: GENDER GAPS IN HEALTH

*Structure of the Section*: The section will consider top burdens of disease facing men and women according to life stage reflected in age-groups and country development levels, using basic data provided by the DCPP project, following the methodology proposed in the authors guidelines. Mostly, analysis will be based on GBD data and supplemented with additional information when available. Three aspects will be reported: (a) male-specific diseases; (b) female-specific diseases and (c) those diseases witch are common to both genders but show significant gender gaps impacting women. The analysis will be focused in the last two aspects, given that male-specific or male-predominant diseases will be reported only as additional information to the chapter.

*Gender Bias*: Given previously mentioned women disadvantages (underreported mortality and morbidity data and gender bias in health, research benefiting more men than women) this section will focus on female specific diseases (e.g., risks related to pregnancy and childbearing, gynecological cancers, female genital mutilation) and burdens disproportionately impacting women (e.g., malnutrition, depression and others mental diseases, visual deficiencies and muscle and bone related disorders). Factors that cause burdens to disproportionately impact women, such as gender-specific symptom presentation or treatment options, household exposures, poor access to health care, cultural norms and social stigma (including domestic violence, sexual abuse) will be discussed if we have available information worldwide.

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*Age Structure*: To prioritize burdens most relevant to women, Global Burden of Disease data was reviewed looking at women in the following life stages: (a) Childhood and Youth; (b) Early reproductive age (15 – 29); (c) Late reproductive age (30 – 44); (d) (Peri)menopause (45 – 59); (e) Older age (60 and up). Age structure will be also used to ponder data and to get better-balanced burden of diseases among age groups.

*Regionalization*: Data will be presented by developed and developing countries as a proxy of income level. To developing countries data will be regionalized using the World Bank country classifications.

*Social Determinants of Gender Differences*: In order to find the determinants of gender gaps in the burden of diseases, the morbidity, mortality and DALY data will be correlated with other

variables (as the gender development index produced by UNDP, female economic participation in the labor market, women position on families, etc.).

*Data*: As an initial step, GBD data were used to determine each burden's contribution to total DALY, excess DALY experienced by women over men, and top burdens stratified by life stages. To supplement these data, to identify further burdens of priority to women's health, and to explore available interventions, a secondary literature search will be conducted, complementing early search done to the previous outline of this chapter. In order to get a more detailed analysis, the major diseases disproportionately affecting women will be selected using three criteria: (a) the DALY weight in the burden of diseases and (b) the relative size of the gap in the total DALY of each specific disease and (c) the evolution of the gender gap on the burden of diseases between 1990 and 2001 (if there is compatible conceptual information in the classification of the diseases groups)[1]. This exercise will be done for each world region considered by the DPCC project. DALY data will be analyzed separately for those related to mortality and those related to morbidity, in order to get the weight of each disease to disability. The DALY lost to each disease will be calculated using the discount criteria suggested by the authors guidelines.

## SECTION 3: INTERVENTIONS TO REDUCE GAPS FOR DISEASES THAT AFFECT DISPROPORTIONALY WOMEN

*Review of the Interventions*: Based on the set of diseases previously selected, this section will briefly review major challenges associated with successful development of women's health interventions and discuss potential strategies for addressing these challenges: We will first briefly review the manner in which the rest of DCPP is defining interventions and place this framework into the context of women's health interventions. We will attempt to develop summary tables, based on the DCPP chapters and in the literature review, which will highlight the availability of different types of interventions for women in different stages of life, indicating the grade of evidence for effectiveness. The analysis will prioritize packages of interventions integrating promotion, prevention and treatment and avoiding, when possible, the use of isolated interventions.

*Concept and Classification of Intervention*: In DCPP project, the term 'intervention' is used to denote actions taken by or for individuals to reduce the risk, duration, or severity of an adverse health condition. "Intervention" may mean either increase or decrease (including possibility of dropping altogether) in existing activities—that is, changes of scale; or adding a new activity (either to replace an existing one or to add a new one where there is no current activity)—that is, changes in the nature of an activity. The interventions could be classified in three groups: (a) ***Public health interventions*** directed toward entire populations or population subgroups including change of personal behavior, control of environmental hazards, immunization, mass chemoprophylaxis, and screening and referral; (b) ***Clinical interventions*** provided to individuals at a specified level of care facility such as those provided at a clinic (mobile-services, community-based, home-based, work-based, school based), at a district hospital, or at a referral

[1] This analysis will consider also some other aspects, as the improvement of the diseases registration and report during the nineties as a factor that could introduce bias in the data interpretation.

hospital; (c) ***Packages of Interventions***, as those that having objectives which may be overlapping and include primary prevention (lowering the level of risk factors or instituting policies to forestall their emergence), secondary prevention (reduce the duration of severity of a condition or physiological risk factor in order to forestall its leading to more adverse consequences), cure (remove its cause and restore function to the *status quo ante),* rehabilitation (restore or partially restore) physical, psychological, or social function resulting from a previous or chronic condition), and palliation (reduce pain and suffering from a condition for which no means of cure or rehabilitation is currently available.

*Strategies to deliver interventions directed to women*: Distinguishing between types of interventions and timing/mode of delivery. Argue for a broader recognition of the dimensions by which interventions directed to women may or may not be clinically effective. Strategies may be *categorized* as follows: (a) ***Point-of-service strategy*** consisting of individual level interventions offered during a clinical visit; (b) ***Multi-level strategy*** consisting of population, community, and individual interventions directed at the same burden and target population, and (c) ***Multi-target strategy*** consisting of interventions that address multiple target populations and burdens to create synergies across interventions. Strategies may be *delivered* as follows: (a) ***Across the lifespan***, to promote early prevention and later treatment (if necessary) and/or (b) ***At opportune moments*** that capitalize on settings and times in which women or their children are already interfacing with health providers or might have a brief time window to participate in education, screening, or treatment programs.

**Instruments of Policy**
**(From authors´ guidelines)**

Use of **information, education, and communication** seeks to improve the knowledge of individuals and providers about the consequences of their choices

Use of **taxes and subsidies** on commodities, services, and pollutants seeks to effect appropriate behavioral responses

Use of **regulation and legislation** seeks to limit availability of certain commodities, to curtail certain practices, and define rules governing finance & provision of health services.

Use of **direct expenditures** seeks to provide (or finance provision of) selected interventions, to provide infrastructure that facilitates provision of a range of interventions, or altering infrastructure so as to influence behavior

Undertaking **research and development** is an instrument central to the goal of expanding the range of interventions available and reducing the cost.

*Instruments of policy:* Those are implicitly included in our suggested conceptual framework (e.g., in a multi-level strategy instruments of policy may be combined with individual and population level interventions), since a significant challenge in many women's health interventions is overcoming community-wide stigmas or standards. We will use the DCPP project suggested categories of instruments of policy (see Box 1) to discuss specific examples where there may be particular benefits to women and where instruments of policy may indeed be the most cost-effective approach (either as a primary approach or combined with a packaged intervention) to tackle issues of special relevance to women.

## SECTION 4: INTERVENTION COST-EFFECTIVENESS

This section will present a cost-effective analysis of some of the interventions packages highlighted in the previous section, when information is available. First, we will be search on rough estimation of the general costs to implement those packages in different world regions,

using the DCPP proposed methodology. Secondly, we will get the cost related with some parameters (DALY lost avoided, death avoided, case averted, case prevented, etc.) to be matched with the cost of those interventions reported in the previous section.

This section also will acknowledge the limitations of cost-effectiveness analysis, acknowledge uncertainties and lack of information and comments on equity implications, etc.

## SECTION 5: RECOMMENDED POLICIES AND PRIORITIZATION RESEARCH AGENDA AND METHODOLOGICAL CHALLENGES

Based on the information available previously and on international recommendations, this section will recommend specific policies and programs to reduce gender gaps on health outcomes and improve women's health status, focusing the main diseases presented in section 2 and the interventions proposed in section 3. If information is available, we will estimate the aggregated investment needs and the impact of those interventions in developing countries by world region.

This section will also outline the complexity of establishing economic productivity measures that value women's work and the impact of women's morbidity and mortality on other members of the household and discuss the challenges of measuring women's quality of life, given stigma associated with reporting health conditions and acceptance of quality of life decrements as "normal" consequences of reproduction and gender roles.

The need for better methods for measuring and including the value of women's time, and the need for gender-specific data related to effectiveness and cost-effectiveness of interventions designed to remove barriers for access to care will be discussed as one of several important areas for future work. Data gaps will be identified relating to burden, efficacy, clinical effectiveness, cost-effectiveness, operations research, and dissemination. Finally, an urge for better information about successful scaling up gender-specific interventions that are proven or expected to be effective/cost-effective interventions (single, complex), and scaling down ineffective interventions, is needed and will be discussed.

## LIMITATIONS OF THE PRESENT CHAPTER

Basic information on this chapter will be provided by the DCPP project data basis. The other DCPP chapters will provide information about packages of interventions and cost-effectiveness for diseases with higher gender gaps. In order to assure that this information will be addressed in those chapters, we will contact the authors previously to the production of the final version, asking them the information that we need to complete the evaluation. If those chapters are not finished or present the information on time, we will try to find information about the selected diseases with gender gaps in the public literature and international data basis. We will not consult the gray literature or local experiences. Given these limitations, this chapter cannot be considered as an exhaustive source of information about health gender-gap related interventions and their cost-effectiveness evaluation.

## NEXT STEPS

***July-2004*** – Elaboration of first draft;

***August-2004*** – Submission to peer review process and incorporation of suggestions;

***First half of September-2004*** – Paper finished